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**Maintenance**

**AIR AND SPACE EQUIPMENT STRUCTURAL  
MAINTENANCE**

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This instruction provides procedural guidance to establish and support the Corrosion Prevention and Control, Non Destructive Inspection (NDI) and Advanced Composites maintenance programs. It implements policy in AFD 21-1, *Air and Space Maintenance*. This instruction applies to all major commands (MAJ-COMs), the Air National Guard (ANG), Air Reserve Components (ARC) and their subordinates. HQ USAF/ILM is the waiver authority for this instruction and the approval authority for supplements. MAJ-COMs developing separate instructions based on requirements set forth in this instruction will follow guidance in AFI 33-360, *Publication Management Program*. Ensure all records created by this publication are maintained and disposed of IAW AFMAN 37-139, *Records Disposition Schedule*.

**SUMMARY OF REVISIONS**

**This document is substantially revised and must be completely reviewed.**

**1. Objectives.** This guidance addresses responsibilities to maintain air and space equipment in the optimum condition. An effective structural maintenance program is crucial to support short-term readiness objectives while maintaining fleet health for long-term capability.

- 1.1. Policies shall be established and reviewed to mandate structural maintenance programs.
- 1.2. Air Force organizations shall be structured to optimize structural maintenance programs.
- 1.3. Preventative maintenance programs shall be emphasized to ensure the safety and operability of Air Force systems and equipment.
- 1.4. Roles and responsibilities for structural maintenance shall be specified to ensure compliance and accountability.

**2. Programs.** The Air Force will provide optimum support to structural maintenance programs to maintain air and space equipment in a safe, serviceable and ready condition. This guidance addresses three key structural maintenance programs: NDI, Advanced Composites and Corrosion Prevention and Control. The programs support all functions that acquire, modify, or maintain air and space systems.

2.1. NDI. The NDI Program assesses the structural integrity of air and space systems and equipment by detecting defects (i.e., cracks, voids), delaminations, and foreign objects, and measuring properties such as material thickness, bond-line integrity, material composition and corrosion.

2.2. Advanced Composites. The Advanced Composites Program addresses repair and supportability issues for air and space systems containing advanced composite materials.

2.3. Corrosion Prevention and Control. The Corrosion Prevention and Control Program ensures structural integrity of air and space systems and supporting equipment by preventing, assessing, detecting and controlling the damage and effects of corrosion.

### **3. Roles and Responsibilities.**

3.1. Headquarters Air Force (HAF). The Directorate of Maintenance (AF/ILM) is the chief HAF agency with responsibility for structural maintenance guidance.

3.1.1. Prepares, publishes and reviews AF-level policy and guidance, including this publication. This publication should be reviewed annually and revised, as necessary.

3.1.2. Conducts an annual program management review with functional managers to enhance structural maintenance program effectiveness.

3.1.3. Conducts Utilization and Training Workshops (U&TW) at least every 3 years to resolve technical and training issues for structural maintenance programs.

3.1.4. Establishes procedures for coordinating and establishing names/titles of aircraft or equipment.

3.1.5. Maintains and distributes a list of focal points and functional experts for structural maintenance programs.

3.2. Major Commands (MAJCOM). MAJCOMs provide manpower, resources and training consistent with the assigned mission. Provide detailed guidance, funding and analysis to optimize readiness.

3.2.1. Assign command manager(s) for NDI, Advanced Composites, and Corrosion Prevention and Control functional programs.

3.2.2. Participate in discipline and system-specific advisory boards, conferences, and applicable U&TWs.

3.2.3. Provide timely review of weapon system-specific (to single managers) and general series (to sustainment offices) technical data changes.

3.2.4. Coordinate field-level Subject Matter Expert (SME) support for T.O. change validation/verification processes as requested by Air Logistics Centers (ALCs).

3.2.5. Advocate and participate in periodic command-specific surveys and base assessments in the NDI, advanced composites, and corrosion prevention and control disciplines.

3.2.6. Support AFRL/MLSS field-testing of materials, processes, equipment, and probability of detection (POD) studies prior to operational implementation. Advocate unit-level participation in field test programs when necessary.

3.2.7. Coordinate requests for naming aircraft through appropriate MAJCOM/CC and forward to HQ USAF/ILMM for coordination and approval by AF/CV.

3.3. Air Force Materiel Command (AFMC). AFMC is the lead MAJCOM with responsibility for the NDI, Advanced Composites and Corrosion Prevention and Control programs. AFMC will provide adequate logistics and research, development, test and evaluation to support MAJCOMs.

3.3.1. Provide program funding and sponsor senior-level review and approval boards.

3.3.2. Coordinate with AFRL/MLSS to ensure proper representation in all forums that impact technical or financial management of the sustainment offices.

3.3.3. Air Logistics Centers (ALCs). Each of the ALCs plays a crucial role in the NDI, Advanced Composites and Corrosion Prevention and Control programs. ALCs must specifically designate roles and responsibilities for program support.

3.3.3.1. Appoint a manager to execute the ALC NDI Program.

3.3.3.1.1. Ensure all new or modified NDI procedures are verified by performance before T.O. change publication and distribution IAW T.O. and AF guidance.

3.3.3.1.2. Coordinate field-level SME support for T.O. change validation/verification processes with the appropriate MAJCOM functional manager.

3.3.3.1.3. Review and approve training and proficiency requirements for ALC NDI personnel.

3.3.3.1.4. Ensure organizational and intermediate level personnel are sufficiently trained on new equipment and procedures before implementation.

3.3.3.1.5. Notify single managers of changes to centrally procured equipment and recommend appropriate changes to weapon system-specific and commodity T.O.s.

3.3.3.1.6. Review and coordinate on all changes to NDI facilities, equipment, materials, and processes at the ALC when they impact inspection capability or sensitivity, or change parameters outside specific technical order limits.

3.3.3.1.7. Participate in NDI Advisory Boards, NDI Integrated Process Teams (IPTs), and AF NDI Managers Working Groups as needed to support the resolution of field and depot related issues. Ensure representatives from the affected weapon system and product directorate also participate.

3.3.3.1.8. Review and coordinate on all NDI procedures/changes submitted for field use in accordance with published guidelines, including (but not limited to) Time Compliance TOs and Interim Operating Supplements.

3.3.3.1.9. Maintain qualification/certification program. Refer to AFMCI 21-108, *Maintenance Training and Production Acceptance Certification (PAC) Program*.

3.3.3.2. Appoint a manager to execute the ALC Advanced Composites Program.

3.3.3.2.1. Develop, review, and approve training and proficiency requirements for ALC

advanced composites repair personnel. Must include evaluations of proficiency with methods, equipment, and experience.

3.3.3.2.2. Consult the AF Advanced Composites Office when determining advanced composites training, procedures, and equipment requirements.

3.3.3.2.3. Review all major changes to weapon system-specific advanced composite repair T.O.s and other technical data, upon request of the weapon system single manager or MAJCOM functional manager.

3.3.3.2.4. Review and coordinate on all changes to ALC advanced composite facilities, equipment, materials, and processes when they have potential to adversely impact repair capabilities at any level of maintenance.

3.3.3.2.5. Provide single managers with engineering and technical support for design, redesign and analysis of advanced composite repair processes.

3.3.3.2.6. Establish a “clearing house” for composite materials utilized during manufacture and overhaul processes to minimize waste and maximize material usage.

3.3.3.2.7. Provide ALC composite materials clearinghouse with engineering support to ensure weapon system single managers’ requirements are met.

3.3.3.2.8. Provide engineering support to laboratories performing material recertification processes.

3.3.3.2.9. Ensure representatives from the affected weapon system and product directorate participate in advanced composite repair advisory boards, IPTs, and conferences as needed to support the resolution of field and depot related issues.

3.3.3.3. Designate a manager to execute the ALC Corrosion Prevention and Control Program.

3.3.3.3.1. Inform the AF Corrosion Prevention and Control Office when determining corrosion abatement material and process needs based on weapon system and ALC requirements.

3.3.3.3.2. Assist the AF Corrosion Prevention and Control Office during technology evaluations of corrosion-related materials, equipment, and processes.

3.3.3.3.3. Review major changes to weapon system-specific corrosion prevention and control technical data upon request of single managers or MAJCOM functional managers.

3.3.3.3.4. Review and coordinate on significant changes to corrosion prevention and control facilities, equipment, materials, and processes used at the ALC.

3.3.3.3.5. Participate in Corrosion Prevention Advisory Boards (CPABs) for weapon systems managed or maintained at the ALC, and support resolution of field and depot related corrosion issues through attendance at corrosion-related IPTs, conferences, and other working groups.

3.3.3.3.6. Ensure the ALC workforce is adequately trained in corrosion prevention and control processes.

3.3.4. Air Force Research Laboratory (AFRL). AFRL plans/executes all aspects of the AF Science & Technology Program and is the key organization with functional expertise and responsibility.

ity for the AF structural maintenance programs. AFRL establishes and maintains the Air Force NDI, Advanced Composites, and Corrosion Prevention and Control sustainment offices within the Materials and Manufacturing Directorate (AFRL/ML). These offices serve as the primary customer support function working cross-cutting technologies and solutions for the Major Commands (MAJCOMs), and the depot, intermediate, and organizational levels of maintenance throughout the Air Force.

3.3.4.1. Establish policies for management and continuity of the AF NDI, Advanced Composites and Corrosion Prevention and Control programs. This includes all functions from basic research through field implementation.

3.3.4.2. Ensure Research, Development, Test and Evaluation (RDT&E) is conducted to develop, improve, and validate NDI methods and equipment for the detection and quantification of structural flaws.

3.3.4.3. Ensure RDT&E is conducted to improve and validate advanced composite repair techniques including contingency repairs, large area defects, and Low Observable (LO) composite repairs.

3.3.4.4. Ensure RDT&E is conducted to screen, evaluate, qualify, and approve new materials, processes, and equipment for detecting, identifying, preventing, and controlling corrosion.

3.3.4.5. Assemble and maintain a cadre of engineering and technical experts in NDI, advanced composites, and corrosion prevention and control. These experts must be readily accessible and responsive to MAJCOMs, ALCs and field maintenance activities.

3.3.4.6. Promote integrated solutions to sustainment issues by conducting periodic meetings, participating in integrated product teams, and attending other forums to cross flow NDI, advanced composites, and corrosion prevention and control information.

3.3.4.7. Establish a process to review research and development (R&D) programs to ensure they meet user needs in the NDI, advanced composites and corrosion prevention and control areas.

3.3.4.8. Develop, draft and coordinate discipline-specific policies and procedures on behalf of USAF/ILMM and AFRL/ML.

3.3.4.9. Ensure material and process technologies have been sufficiently field-tested prior to field implementation and technical order incorporation through coordination with system program offices and MAJCOMs.

3.3.4.10. Participate in system acquisition reviews and present sustainment-related recommendations to cognizant authorities during design, prototyping and initial fielding of new air and space systems.

3.3.4.11. Support MAJCOM, ALC and single manager requests for field tests, command/agency surveys, resolution of materials-related difficulties, and in-service equipment problems.

3.3.4.12. Serve as the central information warehouse for discipline-specific qualified products, processes, equipment, and general series technical data.

3.3.4.13. Conduct and participate in discipline-specific technology exchange forums and joint

sustainment activities with other DoD components, government agencies and civilian industry.

3.3.4.14. Participate in annual program management reviews with USAF/ILMM, the 2A7XX MAJCOM functional managers, and AFRL/MLSS to assess and enhance program effectiveness.

3.3.4.15. Develop standardized guidelines for discipline-specific advisory board charters. These guidelines will address constituency, roles, and procedures.

3.3.4.16. Develop and publish pertinent information and promotional materials needed to manage the AF NDI, Advanced Composites, and Corrosion Prevention and Control maintenance programs.

3.3.4.17. Participate in applicable U&TWs as an SME in the respective discipline or functional area.

3.3.5. Single Managers. The single managers are crucial to the success of the AF structural maintenance programs, for they manage every aspect of their respective weapon systems.

3.3.5.1. Ensure NDI requirements are documented and validated by Aircraft Structural Integrity Program (ASIP) and Engine Structural Integrity Program (ENSIP).

3.3.5.2. Establish and maintain weapon system requirements for facilities, tooling, and equipment, including master NDI reference standards.

3.3.5.3. Ensure system-specific NDI requirements are reviewed and approved by ALC NDI engineering staff.

3.3.5.4. Ensure field NDI SMEs and ALC managers support and verify all new or modified NDI procedures before they are published and distributed.

3.3.5.5. Coordinate field-level SME support for T.O. change validation/verification processes as with the appropriate MAJCOM functional manager.

3.3.5.6. Ensure specialized weapon system/item NDI training is provided to maintenance personnel for unique NDI procedures on their weapons systems.

3.3.5.7. Ensure that NDI procedures are developed, validated, and incorporated into weapon system-specific technical data. Any such procedures submitted for field use must be reviewed and approved by the ALC NDI Manager.

3.3.5.8. Evaluate the impact of probability of detection (POD) results on inspection intervals. Forward findings to the AF NDI Office.

3.3.5.9. Maintain NDI technical order currency (i.e., plan for NDI technical order updates and changes especially when new centrally procured equipment is scheduled for purchase).

3.3.5.10. Establish a charter to govern the NDI Advisory Boards (NDIAB) for resolving system-specific issues and action items. The single manager, serving as Chair, conducts the NDIAB periodically.

3.3.5.11. Participate in NDI IPTs and working groups as needed to maintain continuity throughout the Air Force.

3.3.5.12. Identify ALC equipment needs to the AF NDI Office.

- 3.3.5.13. Identify new NDI field inspection equipment technical requirements to the AF NDI Office for incorporation into equipment commercial item descriptions.
  - 3.3.5.14. Provide to the AF NDI Office, when requested, all currently collected cost and manpower investment data needed to assess total cost of NDI inspections for their weapon system.
  - 3.3.5.15. Ensure system-specific required advanced composites training is defined and documented for personnel at all levels of maintenance, including contractors.
  - 3.3.5.16. Ensure that advanced composites procedures are developed, validated, and incorporated into weapon system-specific technical data. Any such procedures submitted for field use must be reviewed and approved by the ALC Advanced Composites Manager.
  - 3.3.5.17. Maintain advanced composites T.O. currency for their respective weapon system.
  - 3.3.5.18. Establish and maintain minimum weapon system-specific requirements for facilities, tooling, and equipment.
  - 3.3.5.19. Ensure composite repair materials are available to field maintenance units in reasonable quantities and cost.
  - 3.3.5.20. Ensure hazardous material handlers and mishap recovery personnel receive material handling training in conjunction with system-specific training.
  - 3.3.5.21. Provide the AF Advanced Composites Office all currently collected cost and manpower investment data needed to assess total cost of advanced composite maintenance/repair/manufacture for their weapon system upon request.
  - 3.3.5.22. Establish a charter to govern Corrosion Prevention Advisory Boards (CPABs), IPTs and AF composite repair groups and conferences to support the resolution of field and depot related issues. Chair and conduct CPAB meetings at least annually.
  - 3.3.5.23. Develop and maintain up-to-date engineering and technical data for corrosion-related materials and processes, paint schemes, and system-specific markings for their weapon systems.
  - 3.3.5.24. Participate in corrosion-related conferences, IPTs, and other working groups as needed to maintain connectivity with DoD, industry, and Air Force corrosion maintenance and engineering personnel.
  - 3.3.5.25. Ensure that system-specific specialized and supplemental corrosion prevention and control training is available for personnel at all levels of maintenance.
  - 3.3.5.26. Establish and maintain weapon system-specific requirements for facilities, tooling, and equipment.
  - 3.3.5.27. Provide to the AF Corrosion Prevention and Control Office, when requested, all currently collected cost and manpower investment data needed to assess total cost of corrosion maintenance for their weapon system.
  - 3.3.5.28. Ensure corrosion is adequately addressed in weapon system integrity plans (Force Structure Maintenance Plan, Weapon System Capability Plan).
- 3.3.6. AF NDI Office. This office, assigned to AFRL (AFRL/MLSST), serves as the focal point for the AF NDI maintenance program. The AF NDI Office guides the maintenance support pro-

gram for HQ USAF by overseeing NDI-related activities throughout the Air Force and providing technical support to users.

3.3.6.1. Provide engineering assistance and technical consultation to USAF/ILMM, MAJCOMs, ALCs, single managers and field maintenance personnel.

3.3.6.2. Support ALC NDI managers and single managers during review of technical data revisions.

3.3.6.3. Conduct POD studies and forward results to single managers and ALC managers.

3.3.6.4. Conduct an Air Force-wide conference to cross flow/resolve NDI issues with Air Force structural maintenance and ALC personnel.

3.3.6.4.1. Conduct an Air Force NDI Manager's Working Group.

3.3.6.4.2. Participate in and provide technical and engineering support to all NDI Advisory Boards. Assist weapon system single managers, MAJCOM functional managers, and ALC NDI managers in tracking, researching and resolving action items.

3.3.6.5. Establish NDI technical equipment requirements with the assistance/coordination of the ALCs. Evaluate new equipment before procurement to ensure adequate field-testing is accomplished prior to its acquisition and to ensure equipment meets AF requirements for safety, deployability, sensitivity, repeatability, reliability, and maintainability.

3.3.6.6. Accomplish assessments of all organizational, intermediate, and depot level NDI laboratories at the request of the MAJCOM functional manager or at least every 5 years.

3.3.6.7. Manage Technical Order 33B-1-1, NDI Methods, to ensure its accuracy, currency and timely publication.

3.3.6.8. Provide sole engineering support for acquisition, repair, and maintainability of centrally procured equipment, and be the engineering authority for centrally procured equipment to promote standardization and prevent and eliminate proliferation of NDI equipment.

3.3.6.9. Develop and maintain an NDI equipment strategic master plan. Master plan must be coordinated with MAJCOM NDI managers, ALC NDI managers, and item management POCs.

3.3.7. AF Advanced Composites Office. This office, assigned to AFRL (AFRL/MLSSH), serves as the focal point for the AF Advanced Composites maintenance program. The AF Advanced Composites Office guides the maintenance support program for HQ USAF by overseeing composites-related maintenance and design activities throughout the Air Force and providing technical support to users.

3.3.7.1. Provide engineering technical support for design, redesign and analysis of composite repair to the MAJCOMs, ALCs, single managers and field maintenance personnel upon request.

3.3.7.2. Assist ALC, MAJCOM, and AFRL NDI and corrosion managers during development of methods, equipment, and technical data to detect defects and prevent corrosion in advanced composite structures.

3.3.7.3. Support the ALCs and single managers in the review of all new and major revisions to technical data.

3.3.7.4. Provide technical data/information to support advanced composites training at all levels of maintenance. Conduct assistance visits as requested by the AETC AFSC 2A7X3 technical school, ALC training functions, and other training units. Provide specialized training assistance that is otherwise unavailable.

3.3.7.5. Develop and publish minimum facility, tooling, and equipment guidelines for generic advanced composites supportability processes.

3.3.7.6. Research, coordinate, and publish mishap guidelines for the safe handling of advanced composites materials.

3.3.7.7. Manage Technical Order 1-1-690, *General Advanced Composite Repair Processes Manual*, to ensure its publication, accuracy, and currency.

3.3.7.8. Assist the single manager, Aircraft Battle Damage Repair (ABDR) Program Office, and MAJCOMs in supporting deployable rapid-repair capability for advanced composite structures.

3.3.7.9. Conduct assistance visits to identify and resolve advanced composites repair-related issues upon request of MAJCOM, ALC or field maintenance personnel.

3.3.7.10. Assess the viability of emerging composite repair technologies and assist with transition of new technologies to new and existing weapon systems.

3.3.7.11. Conduct a DoD-wide conference to cross flow/resolve composites repair issues. This forum will include Air Force structural maintenance personnel at the organizational, intermediate, and depot levels of maintenance, as well as other DoD and industry composite design and repair personnel.

3.3.7.12. Participate in and provide technical engineering support to all Advanced Composite Advisory Boards, IPTs and AF composite supportability groups. Assist weapon system single managers, MAJCOM functional managers and ALC NDI managers in tracking, researching and resolving action items.

3.3.8. AF Corrosion Prevention and Control Office (CPCO). This office, assigned to AFRL (AFRL/MLSSR), serves as the focal point for the AF Corrosion Prevention and Control maintenance program. The AF CPCO guides the maintenance support program by overseeing corrosion maintenance-related activities throughout the Air Force and providing technical support to users.

3.3.8.1. Provide engineering and technical assistance to MAJCOMs, ALCs, single managers, and field maintenance personnel.

3.3.8.2. Survey MAJCOM corrosion prevention and control operations/programs at the request of MAJCOM functional manager, or at least once every 5 years.

3.3.8.3. Perform technical and engineering site assistance visits to address specific field, ALC, single manager, and MAJCOM concerns upon request.

3.3.8.4. Conduct an Air Force-wide conference to cross flow/resolve corrosion prevention and control issues with Air Force structural maintenance and ALC personnel.

3.3.8.5. Support ALC managers and single managers during the review of new and major revisions to technical data as requested by the appropriate single manager.

- 3.3.8.6. Provide technical information and assistance to support corrosion prevention and control training at all levels of maintenance, and review changes to AF formal corrosion training curricula.
- 3.3.8.7. Review and validate master facilities requirements documents. Develop and document minimum facility requirements for corrosion maintenance at all levels of maintenance.
- 3.3.8.8. Provide cognizant engineering support for: T.O. 1-1-8, *Application and Removal of Organic Coatings, Air and Space and Non-Air and Space Equipment*; T.O. 1-1-686, *Desert Storage Preservation and Process Manual For Aircraft, Aircraft Engines, and Aircraft Auxiliary Power Unit Engines*; T.O. 1-1-689, *Avionics Cleaning and Corrosion Prevention/Control*, T.O. 1-1-691, *Aircraft Weapon Systems Cleaning and Corrosion Control*; T.O. 36-1-191, *Technical And Managerial Reference For Motor Vehicle Maintenance*; T.O. 35-1-3, *Corrosion Prevention, Painting and Marking of USAF Support Equipment*; T.O. 35-1-4, *Processing and Inspection of Support Equipment for Storage and Shipment*; and T.O. 35-1-12, *Compounds and Procedures For Cleaning Support Equipment*.
- 3.3.8.9. Participate in and provide technical and engineering support to all CPABs. Assist weapon system single managers, MAJCOM functional managers, and ALC corrosion managers in tracking, researching, and resolving action items.
- 3.3.8.10. Conduct weapon system surveys as requested by the single manager or as stated in the CPAB charter.
- 3.3.8.11. Coordinate with environmental, safety, and occupational health OPRs to assist users in meeting applicable ESOH requirements.
- 3.3.8.12. Conduct a USAF-wide Cost of Corrosion Maintenance Study at least every 5 years, in support of corrosion management and technology development efforts.

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**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

**AFI 21-101**, *Air and Space Equipment Maintenance Management*

**AFI 33-360**, Volume 1, *Publications Management Program*

**AFI 36-2232**, *Maintenance Training*

**AFI 63-111**, *Contract Support for Systems and Equipment*

**AFPD 21-1**, *Air and Space Maintenance*

**DoDD 5025.12**, *Standardization of Military and Associated Terminology*

**JP 1-02**, *DoD Dictionary of Military and Associated Terms*

***Abbreviations and Acronyms***

**AFI**—Air Force Instruction

**AFMC**—Air Force Materiel Command

**AFPD**—Air Force Policy Directive

**AFRL**—Air Force Research Laboratory

**ALC**—Air Logistics Center

**ANG**—Air National Guard

**ARC**—Air Reserve Component

**ASIP**—Aircraft Structural Integrity Program

**CPAB**—Corrosion Prevention Advisory Board

**CPCO**—Corrosion Prevention and Control Office

**ENSIP**—Engine Structural Integrity Program

**ESOH**—Environment, Safety and Occupational Health

**FY**—Fiscal Year

**HAF**—Headquarters Air Force

**IAW**—In Accordance With

**JP**—Joint Publication

**LO**—Low Observable

**MAJCOM**—Major Command

**NDI**—Non Destructive Inspection

**NDIAB**—Non Destructive Inspection Advisory Board

**OPR**—Office of Primary Responsibility

**PGM**—Product Group Manager

**POD**—Probability of Detection

**RDT&E**—Research, Development, Test and Evaluation

**SM**—Single Manager

**SME**—Subject Matter Expert

**SPD**—System Program Director

**TO**—Technical Order

**U&TW**—Utilization and Training Workshop

**USAF**—United States Air Force

### ***Terms***

**Advanced Composites**—Composite materials consist of two or more distinct components. Advanced composites are made by embedding high strength and high stiffness fibers within a resin, metal or ceramic matrix.

**Advisory Boards**—A board of subject matter experts in the fields of air and space materials, aircraft structural maintenance, depot and fielded production. The board reviews contractual requirements, prepares design guidance and periodically surveys contractor activities to provide technical guidance necessary to ensure the contractor conforms to the goals of the program.

**Air and Space Equipment**—Equipment used and maintained to meet the Air Force mission. It includes aircraft, missiles, space equipment, communications-electronic equipment, avionics, engines, training equipment, support equipment, aircraft and space ground equipment, sound suppressor systems, test, measurement and diagnostic equipment and major end items of all equipment.

**Aircraft Structural Integrity Program (ASIP)**—A program applied to an aircraft system to improve design, prevent structural failures, give a basis for corrective action, and predict operational life expectancy of the weapon system.

**Clearing House**—A central site used for purchasing large quantities of materials, repackaging these materials into smaller lots and distributing them to field units.

**Corrosion**—The deterioration of material due to electromechanical or chemical attack resulting from exposure to natural or induced environmental conditions or from the destructive attack of fungi or bacteria.

**Corrosion Prevention**—The process to preclude corrosion by proper material choice and design.

**Corrosion Prevention Advisory Board (CPAB)**—A board of subject matter experts in the fields of air and space materials, aircraft structural maintenance, depot and fielded production. The board reviews contractual requirements, prepares design guidance and periodically surveys contractor activities to provide technical guidance necessary to ensure the contractor conforms to the goals of the program.

**Corrosion Program**—A planned and organized effort to prevent, detect and control corrosion in order to reduce corrosion damage to any weapon system, air and space or ground equipment.

**Engine Structural Integrity Program (ENSIP)**—An organized and disciplined approach to the structural design, analysis, qualification, production and life management of air and space vehicle engines.

**Inter-Service Maintenance Support**—Maintenance either recurring or nonrecurring, performed by the organic capability of one Military Service, or element of it, in support of another Military Service or element.

**Level III NDI**—An individual with the skills and knowledge to interpret standards, select the method and technique for a specific inspection, and prepare and verify the adequacy of procedures. Only individuals with level III certification have the authority to approve NDI.

**Low Observable (LO)**—A technology used to minimize the detection of air and space vehicles.

**Maintenance Training**—Any proficiency, qualification, or certification tasking required by a technician to perform duties in their primary Air Force Specialty.

**Materiel**—Hardware, equipment, software, or any combination thereof, associated with DoD weapon systems and their related spares, repair parts, and support necessary to equip, operate, maintain and support military activities for administrative, support or combat purposes.

**Non Destructive Inspection (NDI)**—A process to determine the quality, integrity, properties, materials, and components without damaging or impairing their serviceability. This is done primarily by using liquid penetrant, magnetic particle, eddy current, ultrasonic and radiographic methods.

**Paint Facility**—A specially constructed facility with proper ventilation, breathable air system, lighting, waste disposal system and environmental control to permit chemical/mechanical stripping and repainting of systems and equipment.

**Readiness**—The ability of US military forces to fight and meet the demands of the national military strategy. Unit readiness is the ability to provide capabilities required by the combatant commanders to execute their assigned missions.

**Single Manager**—The generic title for a designated Air Force Materiel Command System Program Director (SPD), Product Group Manager (PGM) or Material Group Manager (MGM).

**System Program Director (SPD)**—An individual who is ultimately responsible and accountable for decisions and resources in overall program management of a military system. The SPD is the single person, identified in a Program Management Directive (PMD), who is charged with all cost, schedule, performance and sustainment aspects of a directed acquisition program. The SPD's primary customer is the using major command.

**Technical Order**—An AF publication that gives specific technical directives and information on inspection, storage, operation, modification and maintenance of given AF items and equipment.

**Utilization and Training Workshop**—A forum and quality control tool to determine and manage career field education and training requirements as they apply to mission needs.